Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Section 2.106 of the	)	ET Docket No. 95-18
Commission's Rules to Allocate	)	
Spectrum at 2 GHz for Use	)	
by the Mobile Satellite Service	)	

To the Commission:

COMMENTS OF INMARSAT IN RESPONSE TO THIRD NOTICE OF PROPOSED RULEMAKING

Inmarsat, by its attorneys, respectfully submits these Comments in response to the Federal Communications Commission's (FCC or Commission) Third Notice of Proposed Rulemaking (Third NPRM) in the above-referenced docket.[1]

Inmarsat is in the process of developing its fourth generation global Mobile Satellite Services (MSS) system, known as Horizons, to provide Personal Multimedia Communications (PMC) and support for existing services. The Horizons system will provide broadband communications services to users of handheld mobile terminals in the United States and around the world. As such, the Horizons system will constitute an important part of the Global Information Infrastructure.

[1] FCC 98-309, Memorandum Opinion and Order and Third Notice of Proposed Rulemaking and Order, released November 25, 1998.

As the developer of an advanced global MSS system, Inmarsat has a direct interest in the efficient allocation of 2 GHz spectrum and the smooth transition of this spectrum to MSS. The Commission's current proceeding may very well serve as a global model and precedent for market opening for MSS systems. Accordingly, Inmarsat respectfully urges the Commission to take into account not only the specific dynamics of 2 GHz spectrum allocation in the United States, but also the ramifications of its decisions on the world-wide commercial and technical viability of MSS.

I. Transition mechanisms with respect to BAS licensees

In the November 25, 1998 Memorandum Opinion and Order in this docket, the Commission affirmed its decision to allocate 70 MHz of spectrum at 1990-2025 MHz (uplink) and 2165-2200 MHz (downlink) to MSS. At the same time, the Commission also confirmed that the goals and principles underlying the relocation policies of the *Emerging Technologies* proceeding[2] are generally applicable to this 2 GHz spectrum reallocation. Inmarsat believes that the following principles should guide the Commission as it balances the interests of MSS applicants and incumbent users of the 1990-2025 MHz band.

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[2] *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies (Emerging Technologies)*, ET Docket 92-9, First Report and Order and Third Notice of Proposed Rulemaking, 7 FCC Rcd 6886 (1992); Second Report and Order, 8 FCC Rcd 6495 (1993); Third Report and Order and Memorandum Opinion and Order, 8 FCC Rcd 6589 (1993); Memorandum Opinion and Order, 9 FCC Rcd 1943 (1994); Second Memorandum Opinion and Order, 9 FCC Rcd 7797 (1994), *aff'd sub nom.* APCO v. FCC, 76 F.3d 395 (D.C. Cir. 1996).

- *It is essential that no new BAS systems be licensed in the 1990-2025 MHz band.*

Compatibility studies have shown that MSS satellites will suffer from severe co-channel uplink interference resulting from the aggregate impact of multiple BAS emissions. Allowing additional new BAS systems to be licensed will only exacerbate an already difficult and complex technical situation. Moreover, if the Commission neglects to freeze BAS licensing in the 1990-2025 MHz band, new BAS licensees, who are by this time fully on notice of the impending relocation and rechannelization of BAS services, could nevertheless enter into operations in the existing bands with minimally adequate equipment—in anticipation of reaping a windfall benefit in the form of upgraded and relocated equipment furnished by MSS entrants. Inmarsat believes that it is in no one's interest to encourage or facilitate such strategic behavior on the part of BAS licensees.[3]

Similarly, Inmarsat also sees grounds for concern with respect to modifications and extensions of existing BAS systems. Specifically, Inmarsat believes that the Commission should only authorize major modifications and extensions of incumbent BAS systems on a secondary basis during the interim period prior to relocation. In the *Emerging Technologies* proceeding with respect to fixed microwave services (FS), however, the Commission carved out an exception to this secondary basis rule where the FS incumbent "affirmatively justifies primary status." 47 CFR § 101.81.[4] Such a vague

[3] Inmarsat understands that similar views have been expressed by ICO Services Ltd. in a December 23, 1998 Emergency Petition for Limited Further Reconsideration (no Federal Register notice published). Inmarsat supports that petition's objectives, and takes this opportunity to reemphasize the importance of the matter.

[4] *See also Emerging Technologies*, First Report and Order and Third Notice of Proposed Rulemaking, 7 FCC Rcd 6886 (1992) at ¶ 31 & nn. 5, 40; Third Report and Order and Memorandum Opinion and Order, 8 FCC Rcd (1993) at ¶¶ 53-55.

standard opens the door to virtually any modification, again adding to the uncertainties surrounding relocation and opening the door to strategic behavior by incumbents. Inmarsat urges the Commission to make clear that any future modifications of existing BAS systems in the 1990-2025 MHz band will only be authorized on a secondary basis, and to avoid ambiguous exceptions of the sort stated in § 101.81.

- *BAS systems should be accommodated in 85MHz of spectrum at 2025-2110 MHz, but MSS entrants should not bear the cost of that accommodation*

Inmarsat supports the Commission's proposal to require BAS to relocate and rechannelize to fit its operations into the 85 MHz of spectrum remaining at 2025-2110 MHz after the 1990-2025 MHz band is reallocated. However, MSS entrants should not bear the cost of that relocation. The Commission has recognized the need for flexibility in the past. Inmarsat believes the present circumstances warrant similar flexible treatment.

Current BAS analog technology is outdated and spectrally inefficient, and digital technology capable of operating in narrower bands represents the BAS operators' natural path of technological evolution. Notwithstanding this proceeding, BAS operators would be making this transition themselves within the next few years, particularly in light of the Commission's DTV conversion schedule (with its target date of May 1, 2002) which, while not mandatory for BAS, will certainly drive BAS operators' upgrade planning.

Moreover, even in the absence of a reallocation of spectrum to accommodate the dynamic development of MSS, the Commission has the authority to require BAS

licensees to use more spectrum-efficient equipment. The rechannelization to 12 MHz and 13 MHz channels using digital equipment will allow BAS to operate in only 85 MHz of spectrum, rather than the 110 MHz that it currently uses so inefficiently.

Because this proceeding has intervened, however, BAS operators now see within their grasp an undeserved windfall: the prospect that MSS entrants will be required to bear the full cost of upgrading BAS facilities to employ digital, spectrally-efficient technology. Inasmuch as the BAS operators would otherwise have been obliged to bear that cost themselves—whether due to technological and commercial obsolescence, or to Commission-mandated efficiency improvements—this windfall does not fulfill the *Emerging Technologies* objectives of fairness and equity in 2 GHz spectrum allocation. Requiring MSS entrants to bear the full cost of that conversion far exceeds the *Emerging Technologies* objective of minimizing negative economic impacts on incumbent licensees—to the contrary, it will turn reallocation into a commercial boon for BAS incumbents.

Conversely, this boon to BAS incumbents jeopardizes the commercial viability of the very MSS networks that are expected to pay it. The burden of direct relocation costs constitutes a *de facto* spectrum access fee—a device that, should other countries' administrations choose to emulate the FCC, would exponentially increase the degree of uncertainty facing satellite operators attempting to develop global MSS operations. Moreover, as a business matter, global MSS providers have far less leeway to accommodate such uncertainty within their projections than do domestic operators, such as PCS providers, who benefit from a significantly larger target market. The Commission has played a pivotal role in the promotion of MSS. By adhering to a strict interpretation

of its *Emerging Technologies* rules now, the Commission may erect insurmountable barriers to MSS providers. A large relocation cost, arising from only one of the countries to be served, will result in the non-viability of global MSS as a business proposition.

Inmarsat would argue that, as a matter of policy, MSS entrants should not be required to bear any of the costs of BAS relocation and rechannelization.

II. Relocation of FS licensees

Technical studies within the ITU have shown that in many cases sharing between MSS and FS systems will be feasible in downlinks, at least for a transitional period. Indeed, the Telecommunications Industry Association is close to concluding the development of TSB86 on coordination procedures and interference criteria to be used in detailed frequency coordination between the two systems. Consequently, in the early years of MSS operation, it is unlikely that the provision of MSS will necessitate the relocation of the majority of the FS operators in the 2165-2200 MHz band.

Because of the paired nature of the 2110-2150 MHz and 2165-2200 MHz bands, however, an auction winning (*i.e.*, 2110-2150 MHz band) licensee's relocation of FS systems will necessarily result in clearing spectrum in the MSS downlink (*i.e.*, 2165-2200 MHz) band. Inmarsat believes that in that event relocation costs should be a matter for negotiation between the auction winning licensee and the FS system operators. If the MSS licensees in question would have been able to share with the incumbent FS systems in the 2165-2200 MHz band, those MSS operators should not be required to contribute to or reimburse relocation costs necessitated by the introduction of other systems in the auctioned spectrum.

On the other hand, if the MSS licensee is not able to share spectrum with the incumbent FS systems, the relocation costs should be a matter for negotiation between all three parties (*i.e.*, the auction winning licensee, MSS licensee, and FS system operator).

III. Conclusion

Inmarsat submits these comments to promote the fair resolution of relocation issues, and the efficient reallocation of 2 GHz spectrum, in a manner that permits the rapid implementation of MSS service in the United States and around the world. To this end, the Commission should examine commercial realities to ensure that incumbent licensees do not unjustly benefit from the relocation process, and that global MSS networks are able to serve their customers in a cost-effective manner.

Kelly Cameron
Powell, Goldstein, Frazer & Murphy
1001 Pennsylvania Ave. NW, Suite 600
Washington, D.C. 20004
(202) 347-0066

Attorney for Inmarsat

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CERTIFICATE OF SERVICE

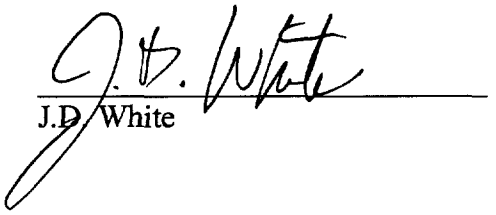
I, J.D. White, do hereby certify that on this 3rd day of February 1999, I caused copies of the foregoing "Comments" to be served via hand delivery to the following:

Magalie R. Salas (Original and 4 copies)
Office of the Secretary
Federal Communications Commission
445 12th Street, SW (TW-A325)
Washington, DC 20554

Julius P. Knapp
Chief, Policy & Rules Division
Office of Engineering & Technology
Federal Communications Commission
2000 M Street NW, Room 480
Washington, DC 20554

Charles J. Iseman
Spectrum Policy Bureau Chief
Office of Engineering & Technology
Federal Communications Commission
2000 M Street NW, Room 480
Washington, DC 20554

Sean White
Office of Engineering & Technology
Federal Communications Commission
2000 M Street NW, Room 480
Washington, DC 20554



J.D. White

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